

ABSTRACT OF THE DISCLOSURE

A projection optical system for use in an image projection apparatus illuminating a lightbulb forming an image in accordance with a modulating  
5 signal with illumination light from a light source is disclosed. The projection optical system includes first and second optical systems arranged along an optical path defining an upstream-downstream direction in the order described from upstream to  
10 downstream on the downstream side of the lightbulb. The first optical system includes at least one dioptric system and has positive power. The second optical system includes at least one reflecting surface having power and has positive power. The  
15 image formed by the lightbulb is formed as an intermediate image in the optical path, and the intermediate image is magnified and projected.